AUTOMATIC TRANSMISSION

SECTION AT

MODIFICATION NOTICE:

- Wiring diagrams have been changed.
- RE5R05A model has been added for Europe.

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RE4R03A

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RE5R05A

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Supplemental Restraint System (SRS) “AIR BAG” and “SEAT BELT PRE-TENSIONER”

The Supplemental Restraint System such as “AIR BAG” and “SEAT BELT PRE-TENSIONER” used along with a seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. The SRS system composition which is available to NISSAN MODEL Y61 is as follows (The composition varies according to the destination and optional equipment.):

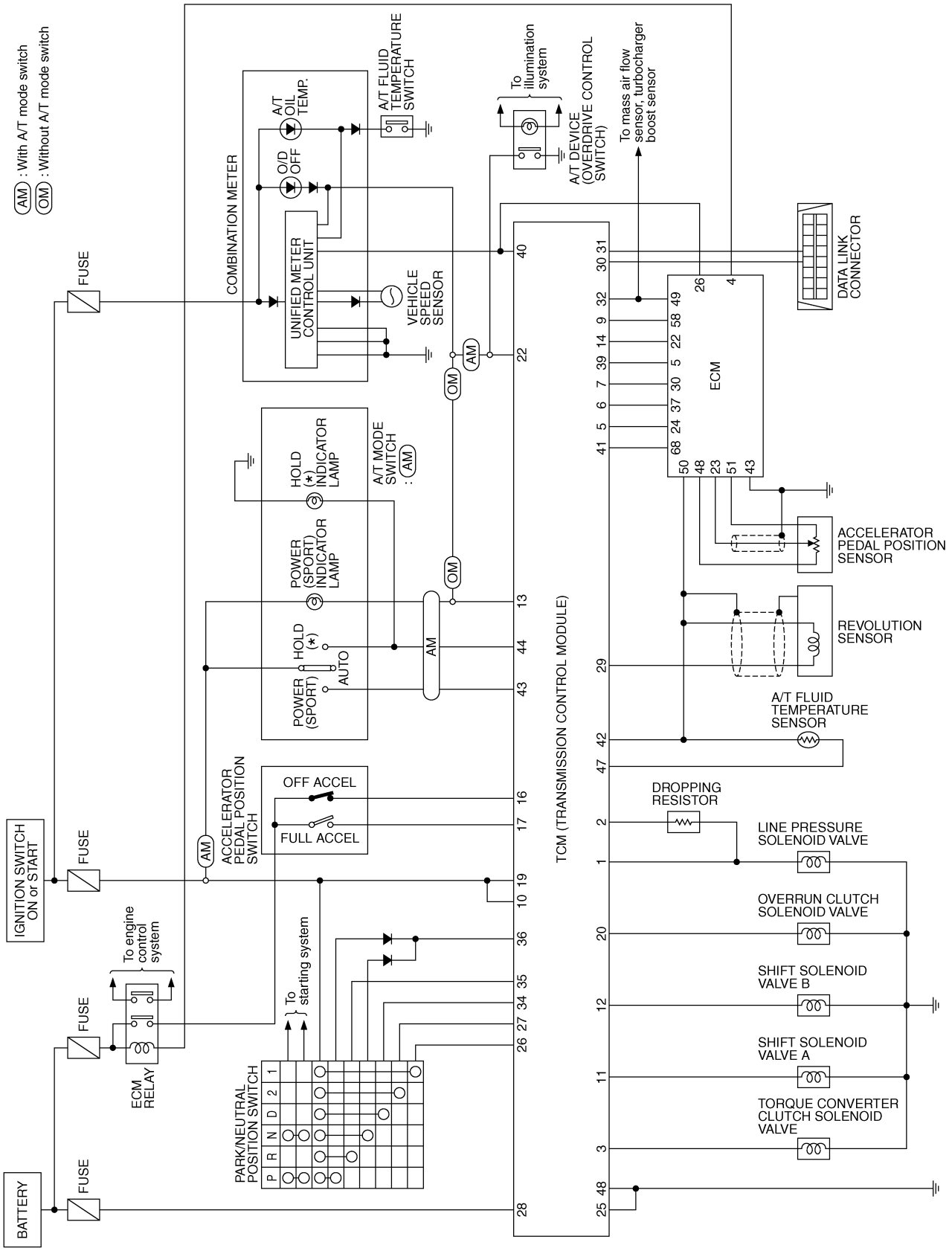
- For a frontal collision
  The Supplemental Restraint System consists of driver air bag module (located in the center of the steering wheel), front passenger air bag module (located on the instrument panel on passenger side), seat belt pre-tensioners, a diagnosis sensor unit, warning lamp, wiring harness and spiral cable.
- For a side collision
  The Supplemental Restraint System consists of front side air bag module (located in the outer side of front seat), satellite sensor, diagnosis sensor unit (one of components of air bags for a frontal collision), wiring harness, warning lamp (one of components of air bags for a frontal collision).

Information necessary to service the system safely is included in the **RS section** of this Service Manual.

WARNING:

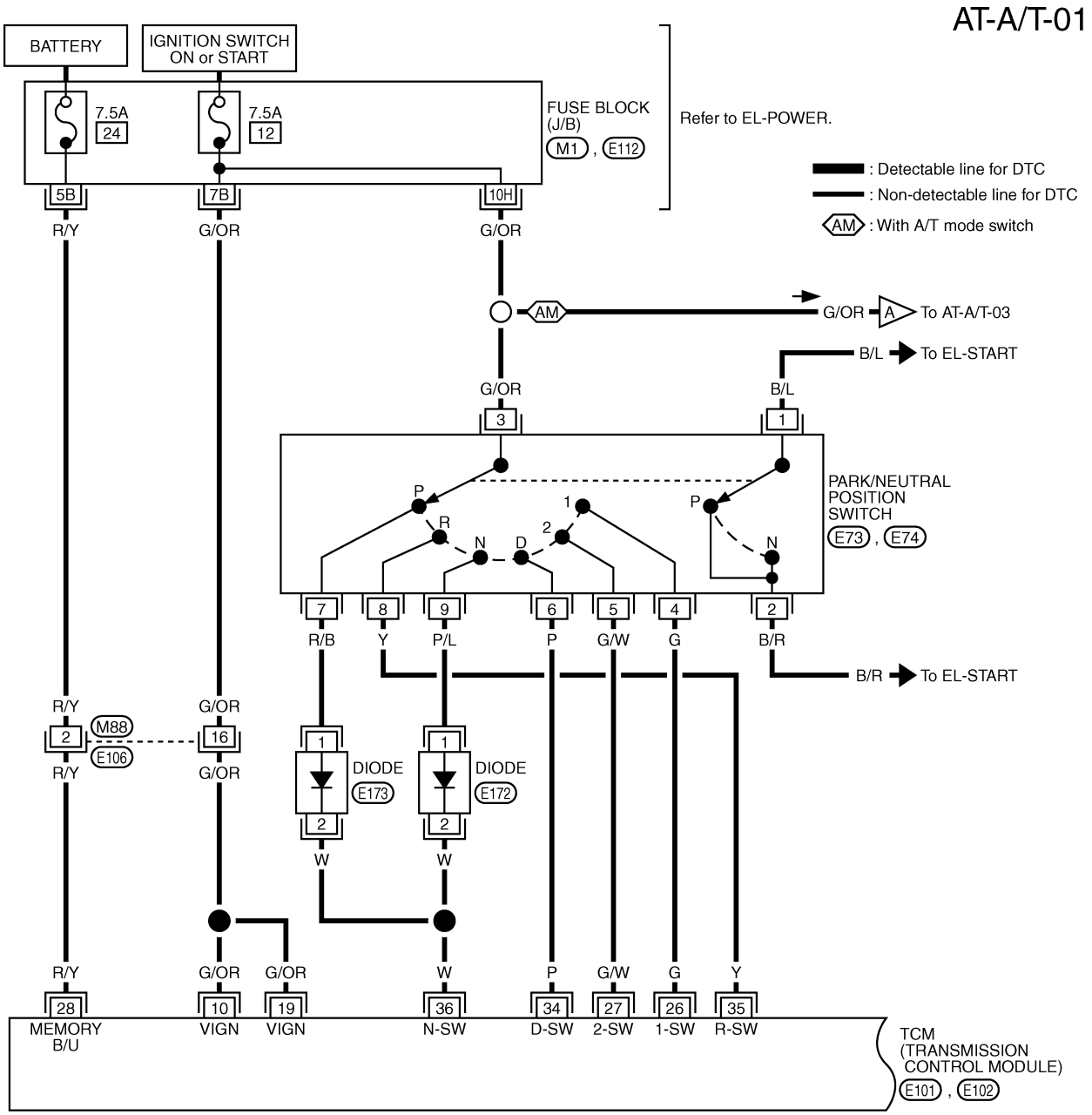
- **To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance should be performed by an authorized NISSAN dealer.**
- **Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the RS section.**
- **Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow harness connector.**

Circuit Diagram



TAT135M

Wiring Diagram — A/T —



Refer to last page (Foldout page).

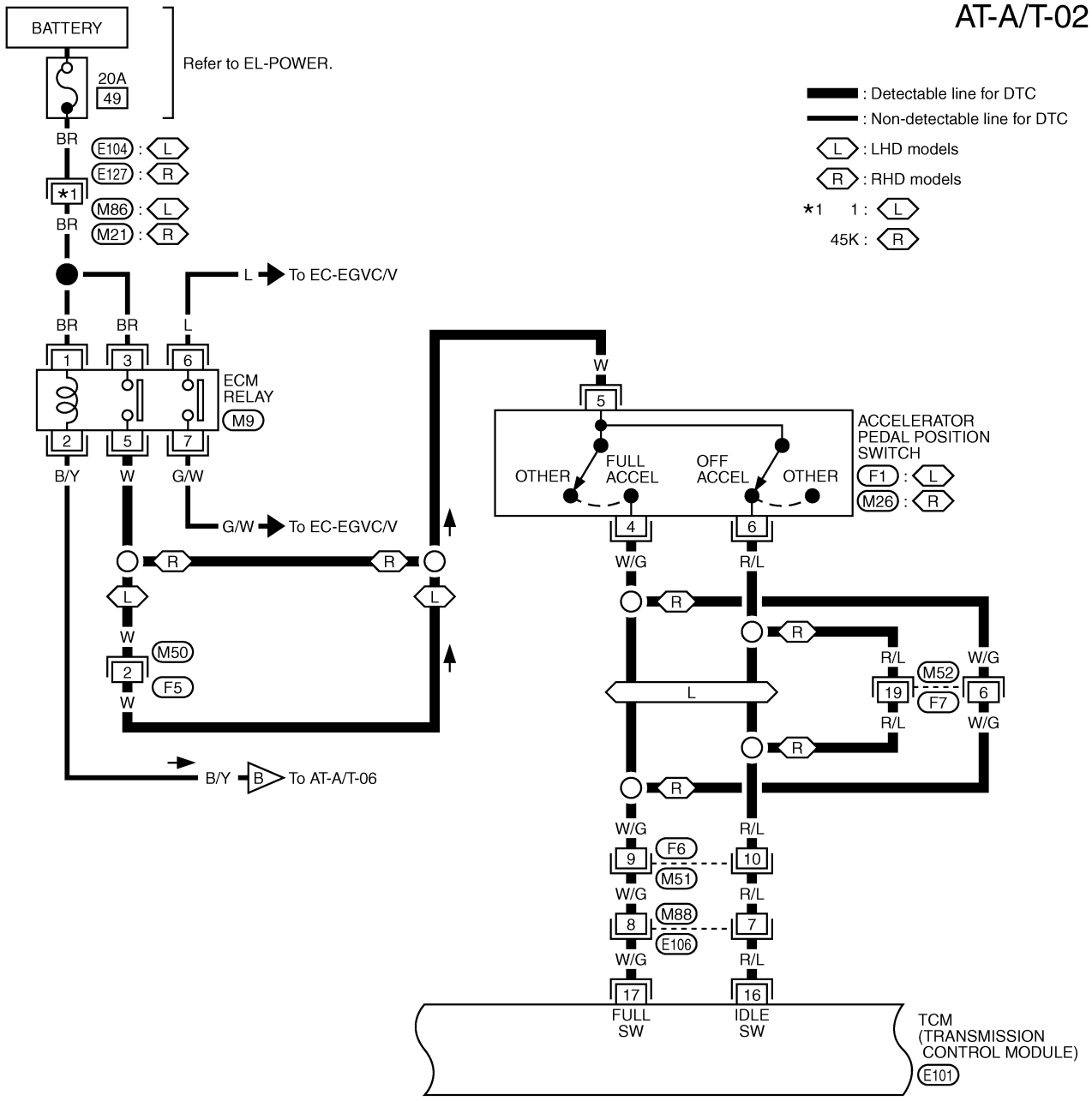
M1

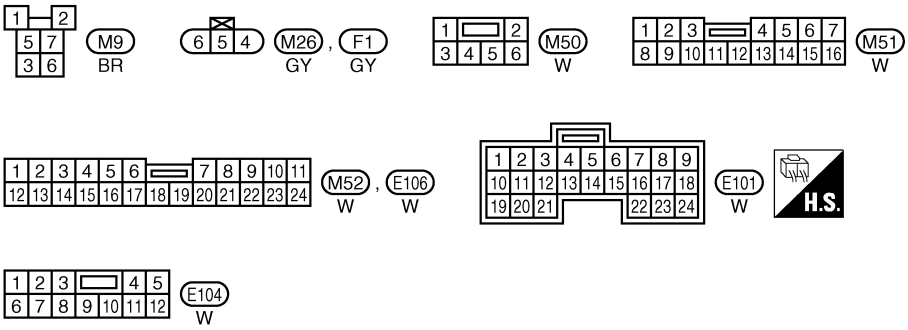
E112

TAT061M

Wiring Diagram — A/T — (Cont'd)

AT-A/T-02



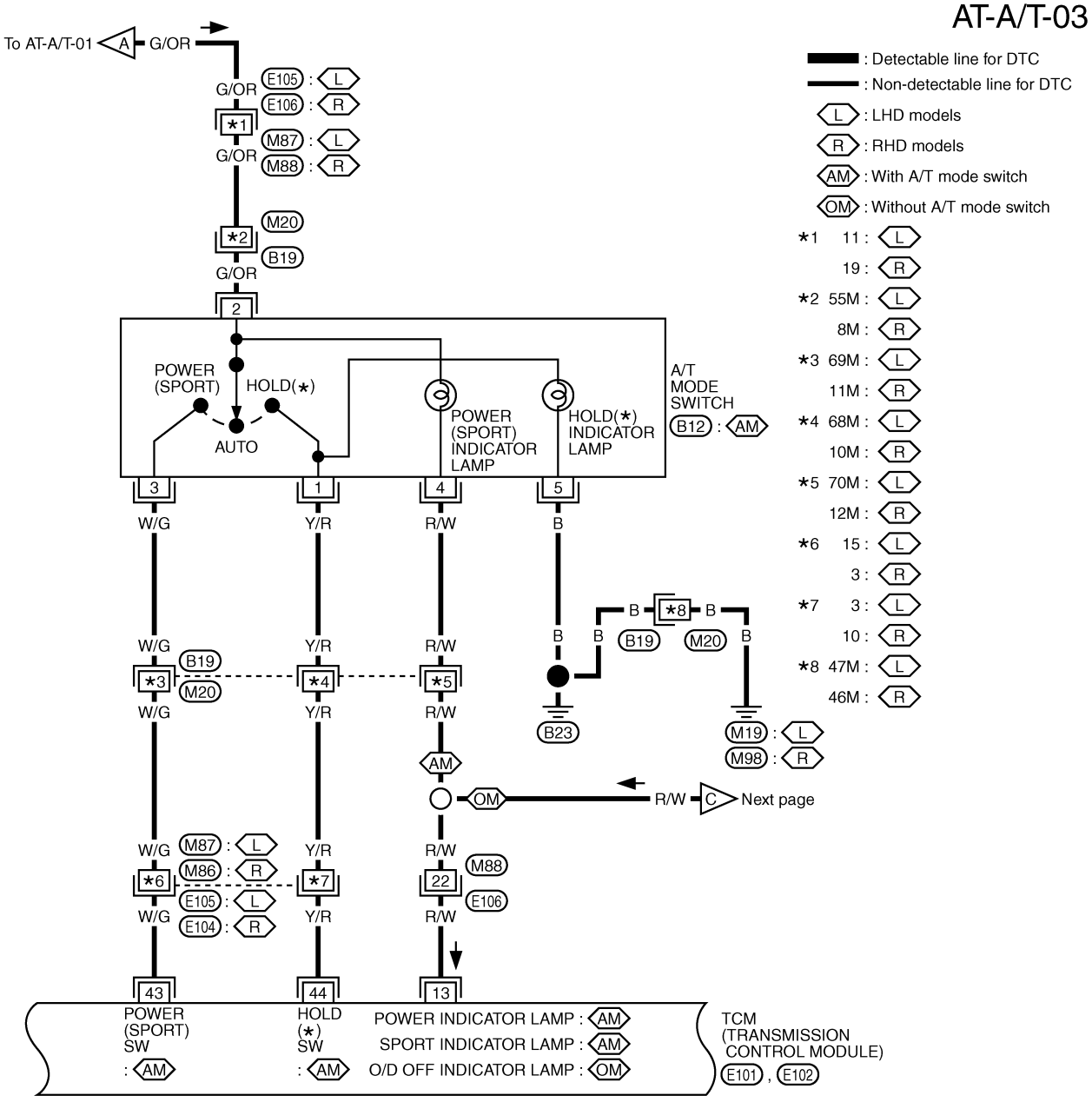


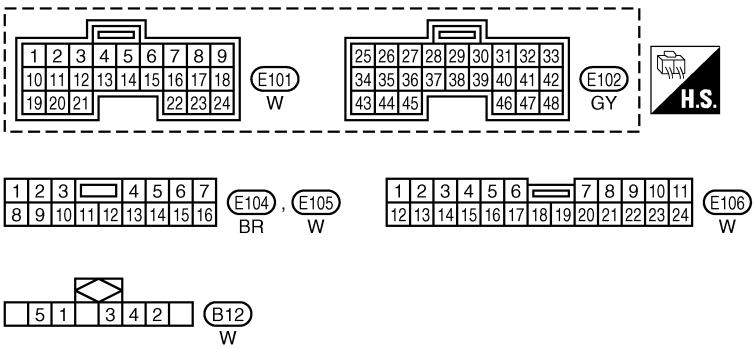
Refer to last page (Foldout page).
M21 , E127

TAT136M

Wiring Diagram — A/T — (Cont'd)

AT-A/T-03



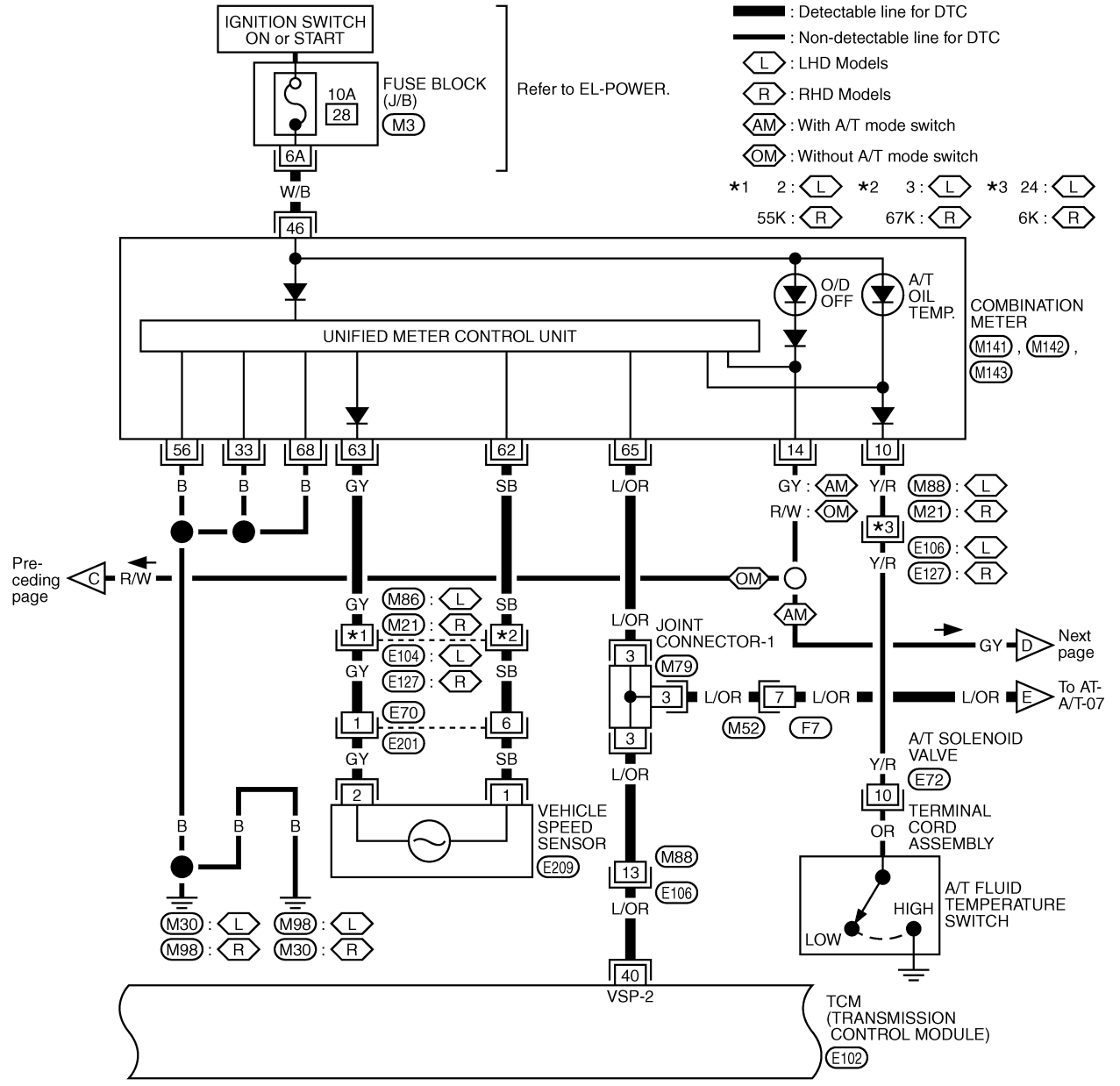


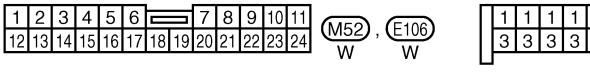
Refer to last page (Foldout page).
M20 , B19

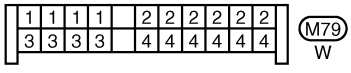
TAT109M

Wiring Diagram — A/T — (Cont'd)

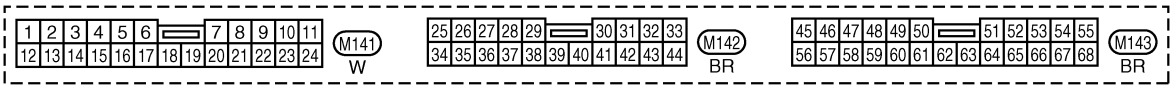
AT-A/T-04

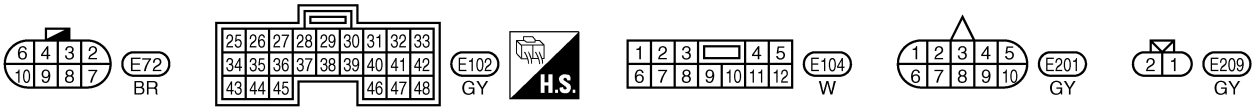

IGNITION SWITCH ON or START
10A 28
FUSE BLOCK (J/B) M3
Refer to EL-POWER.
6A
W/B
46
: Detectable line for DTC
: Non-detectable line for DTC
L : LHD Models
R : RHD Models
AM : With A/T mode switch
OM : Without A/T mode switch
*1 2 : L *2 3 : L *3 24 : L
55K : R 67K : R 6K : R
UNIFIED METER CONTROL UNIT
O/D OFF
A/T OIL TEMP.
COMBINATION METER M141, M142, M143
56 33 68 63 62 65 14 10
B B B GY SB L/OR GY : AM R/W : OM Y/R
M88 : L M21 : R E106 : L E127 : R
*3
Pre-ceding page C R/W
OM AM
GY SB L/OR
M86 : L M21 : R E104 : L E127 : R
*1 *2
JOINT CONNECTOR-1
3 M79 3 3
L/OR 7 L/OR L/OR E To AT-A/T-07
M52 F7
GY D Next page
E70 E201
1 6
2 1
VEHICLE SPEED SENSOR E209
A/T SOLENOID VALVE E72
10 TERMINAL CORD ASSEMBLY
OR
M88 13 E106
A/T FLUID TEMPERATURE SWITCH
HIGH LOW
M30 : L M98 : R
M98 : L M30 : R
40 VSP-2
TCM (TRANSMISSION CONTROL MODULE) E102





Refer to last page (Foldout page).
M21, E127
M3

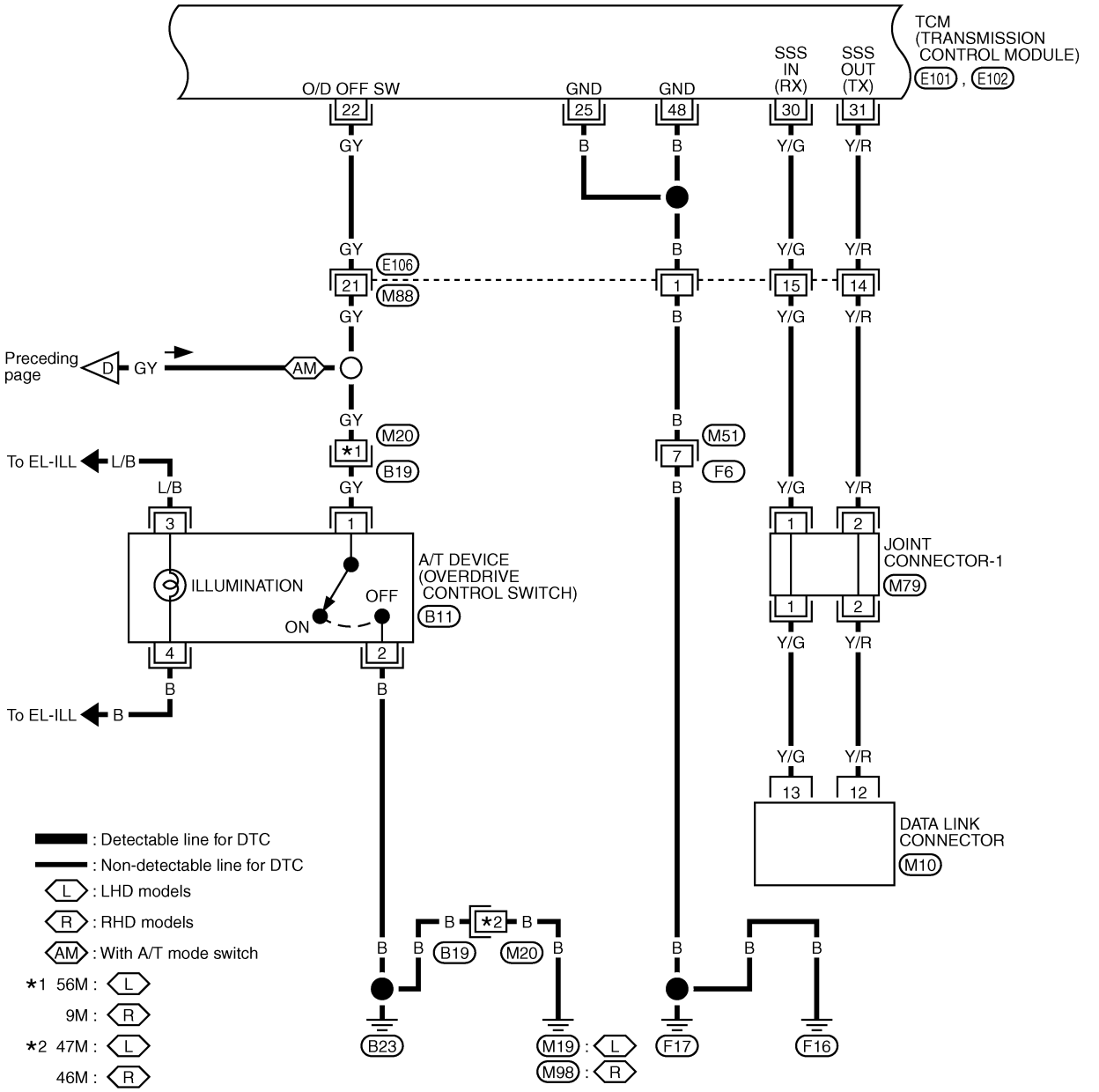


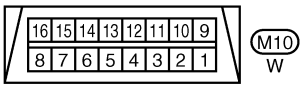


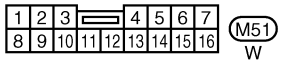
TAT122M

Wiring Diagram — A/T — (Cont'd)

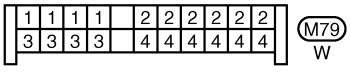
AT-A/T-05

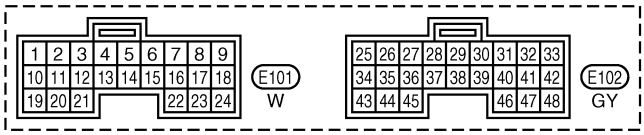


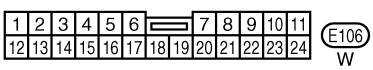


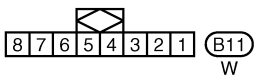


Refer to last page (Foldout page).
M20, B19





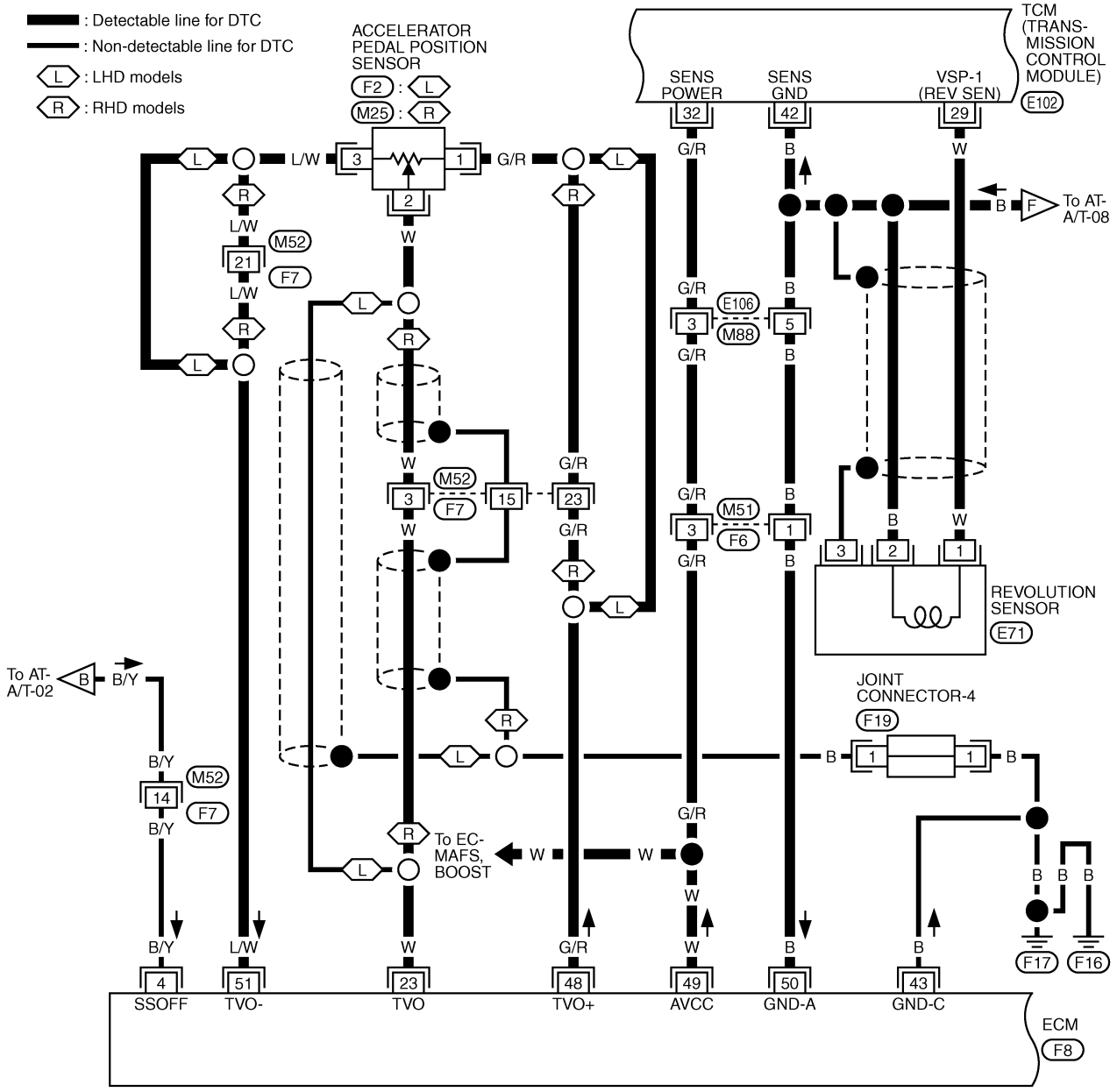


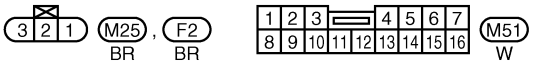


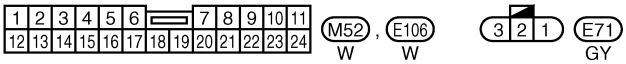
TAT111M

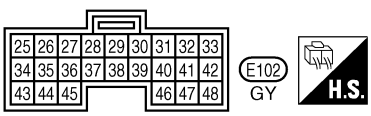
Wiring Diagram — A/T — (Cont'd)

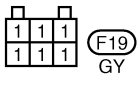
AT-A/T-06







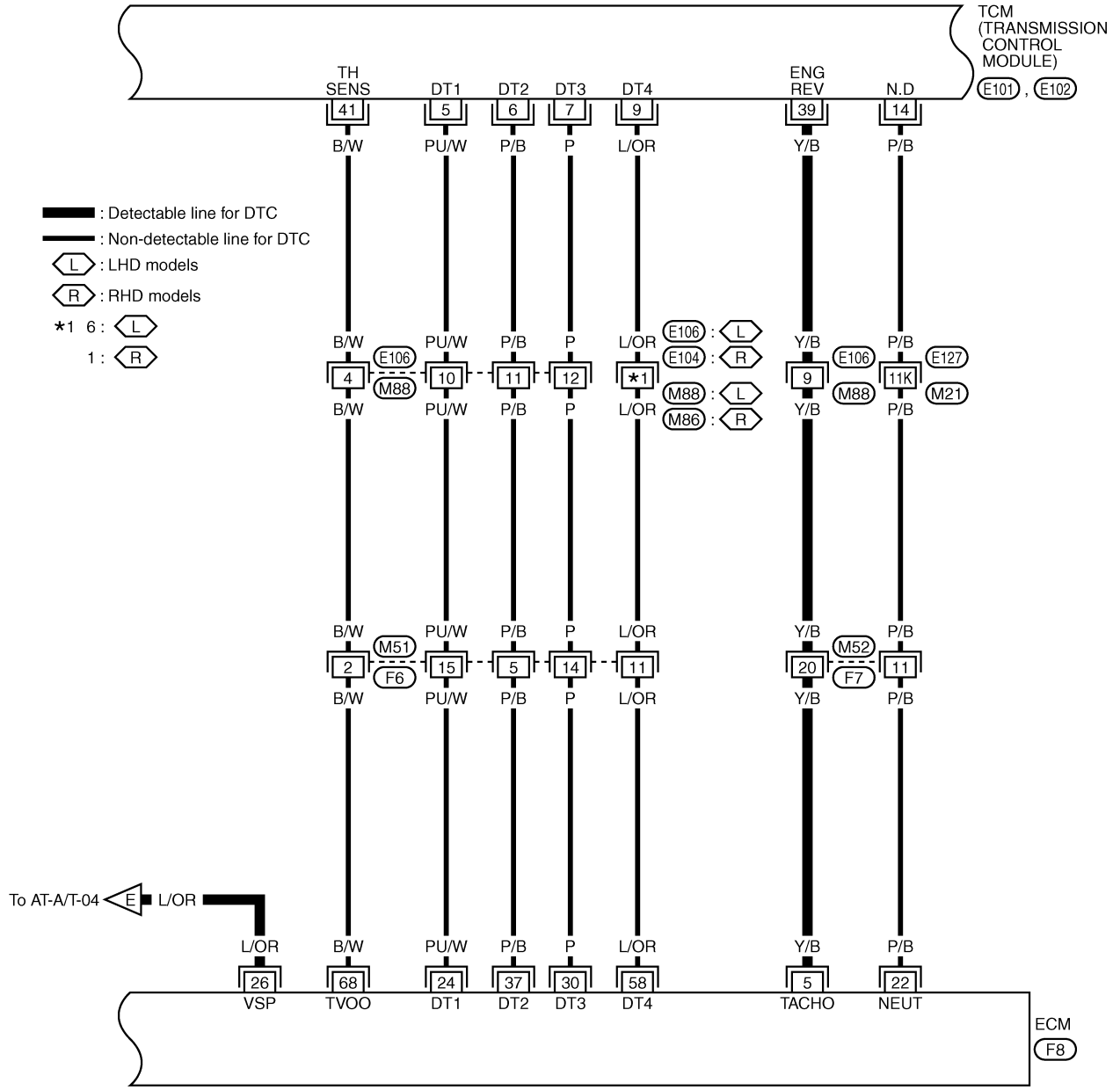


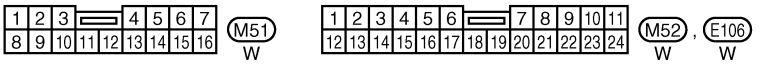


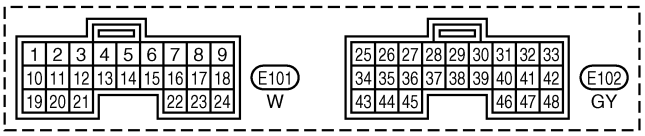
Refer to last page (Foldout page).
F8

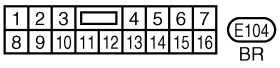
Wiring Diagram — A/T — (Cont'd)

AT-A/T-07







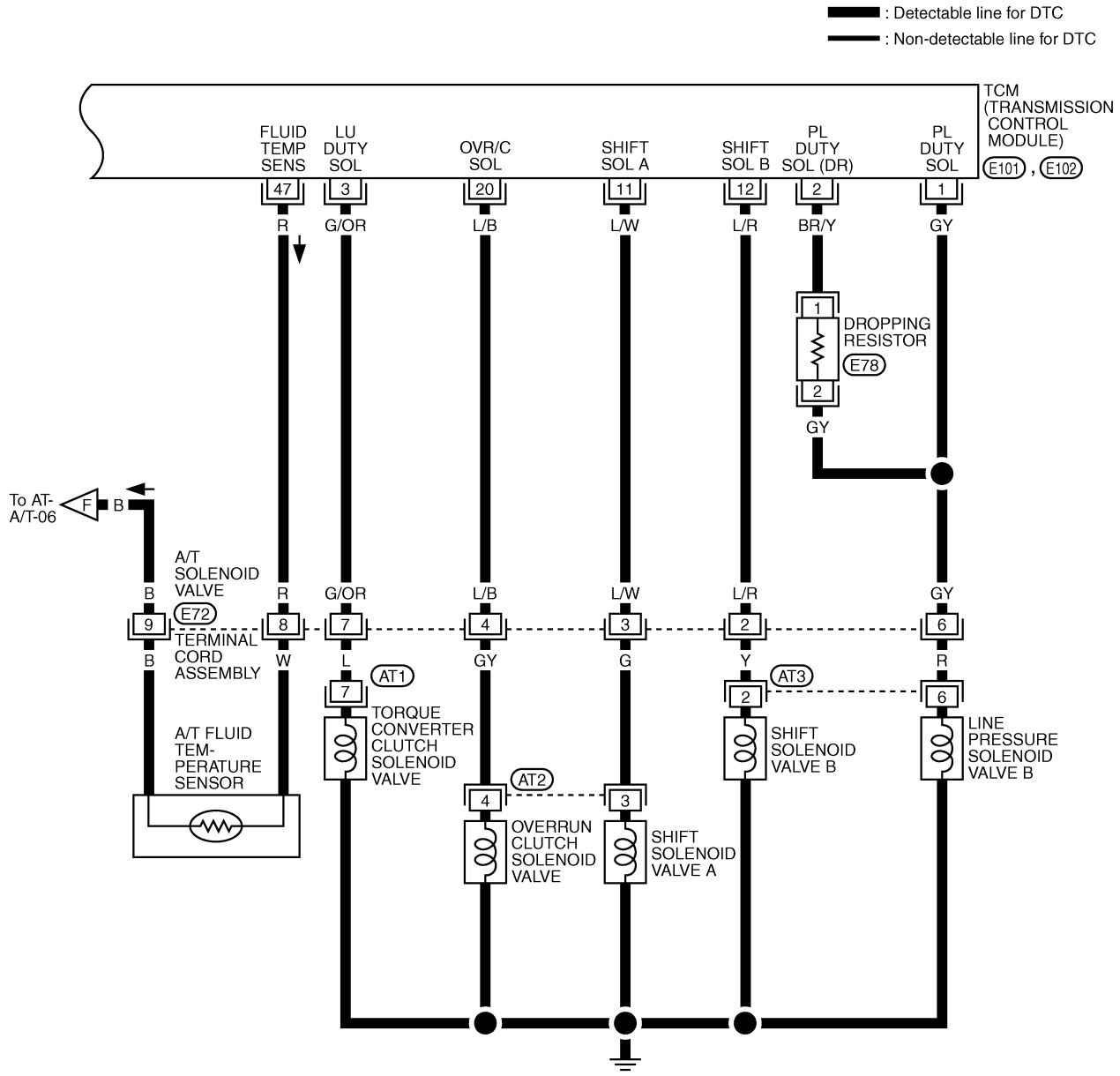


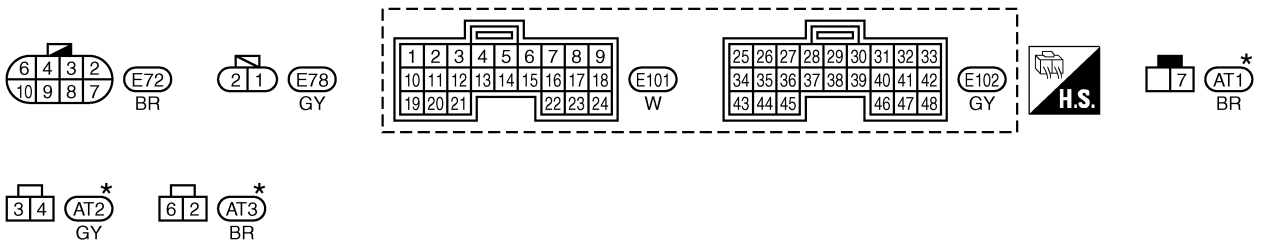
Refer to last page (Foldout page).
M21, E127
F8

TAT128M

Wiring Diagram — A/T — (Cont'd)

AT-A/T-08

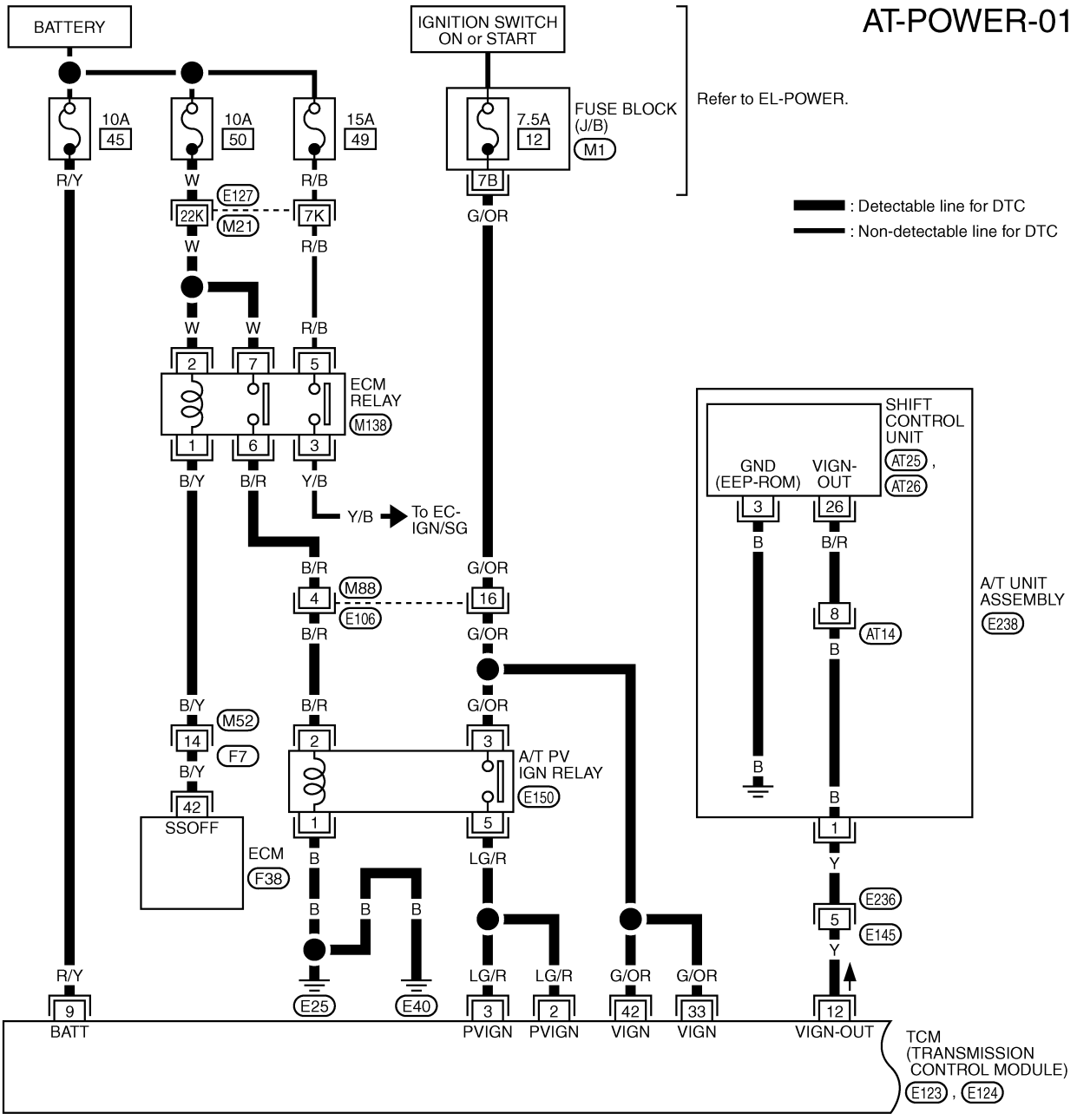


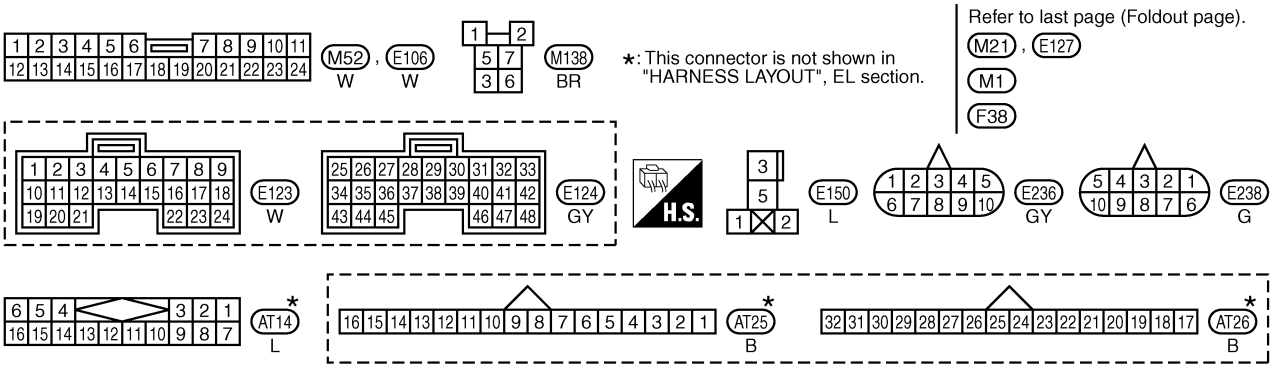


*: This connector is not shown in "HARNESS LAYOUT", EL section.

TAT114M

Wiring Diagram — AT — POWER

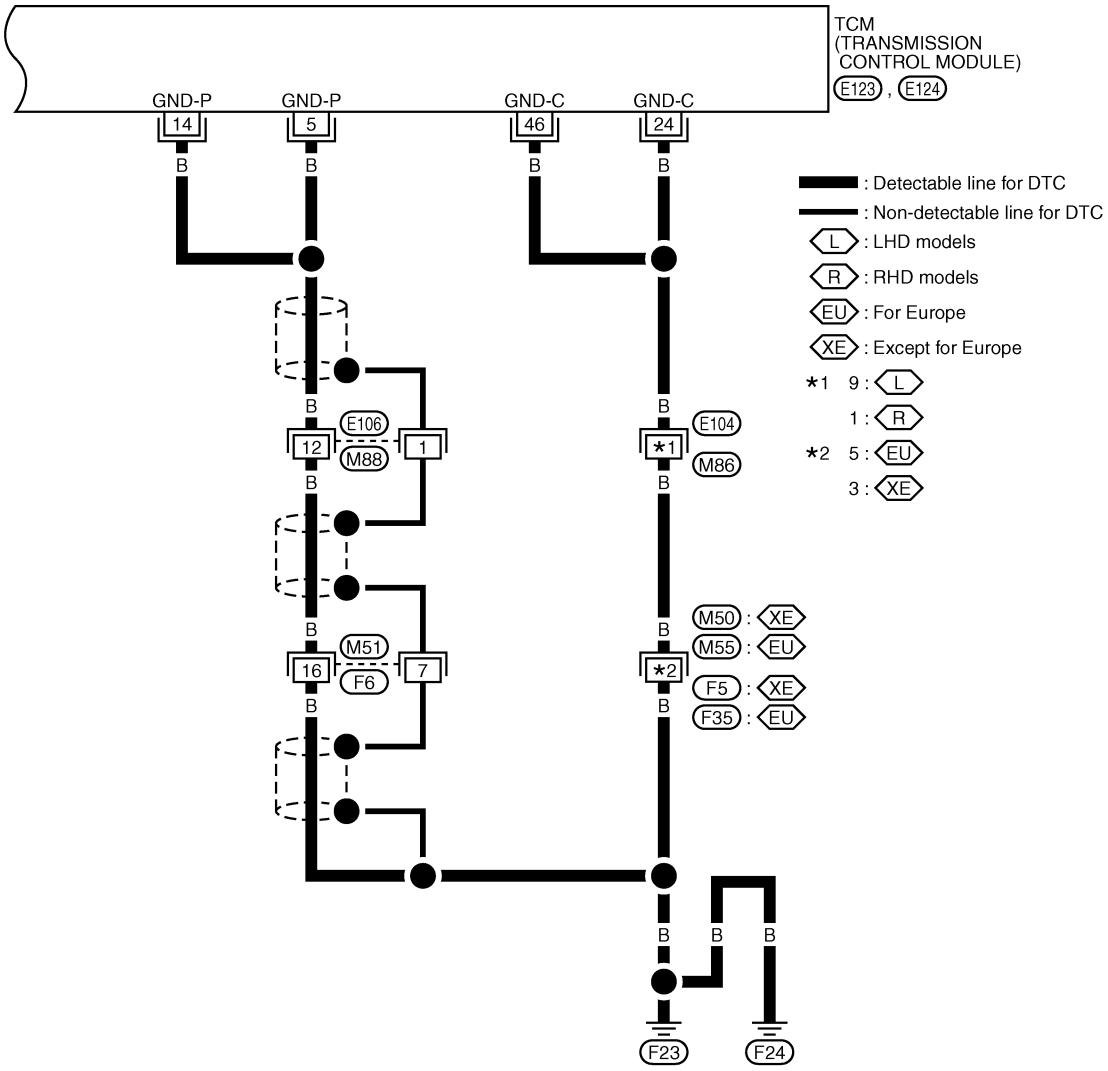


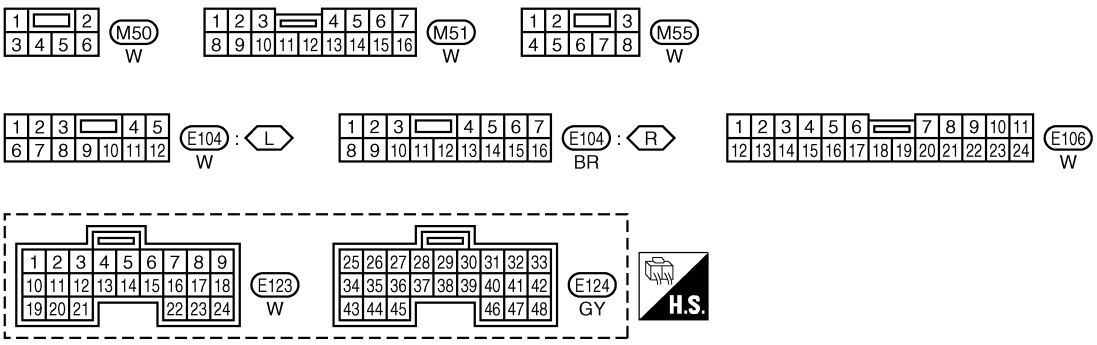


TAT088M

Wiring Diagram — AT — POWER (Cont'd)

AT-POWER-02



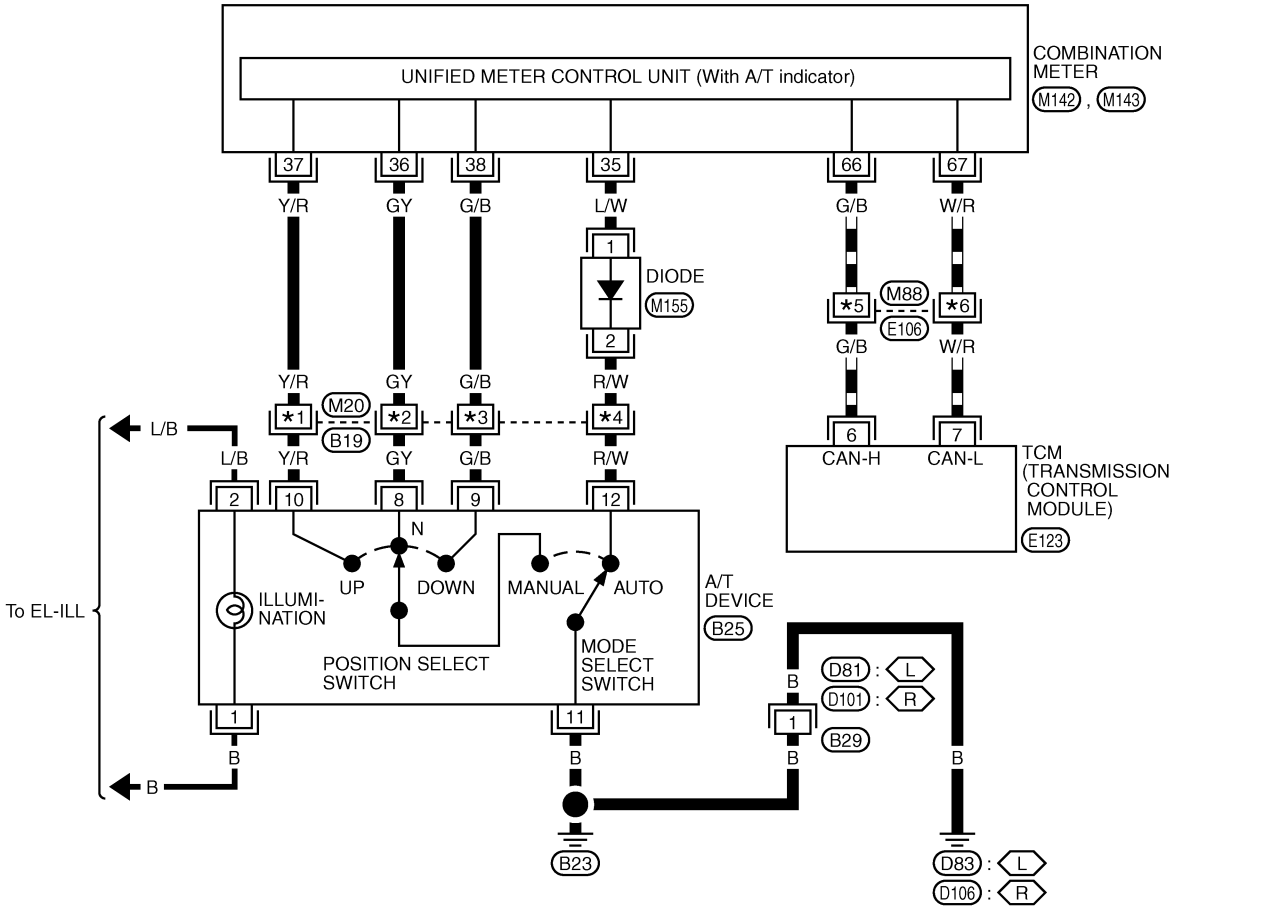


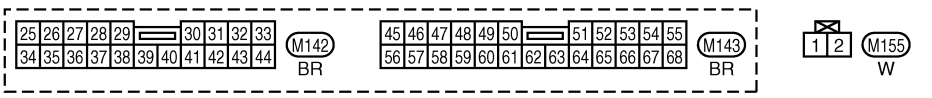
TAT115M

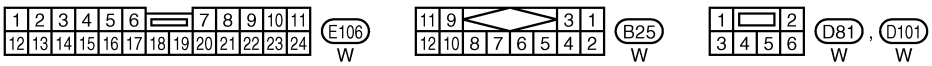
Wiring Diagram — AT — MMSW

AT-MMSW-01

: Detectable line for DTC
: Non-detectable line for DTC
: DATA LINE
L : LHD models
R : RHD models
*1 68M : L 10M : R
*2 56M : L 9M : R
*3 55M : L 8M : R
*4 69M : L 11M : R
*5 7 : L 18 : R
*6 8 : L 19 : R



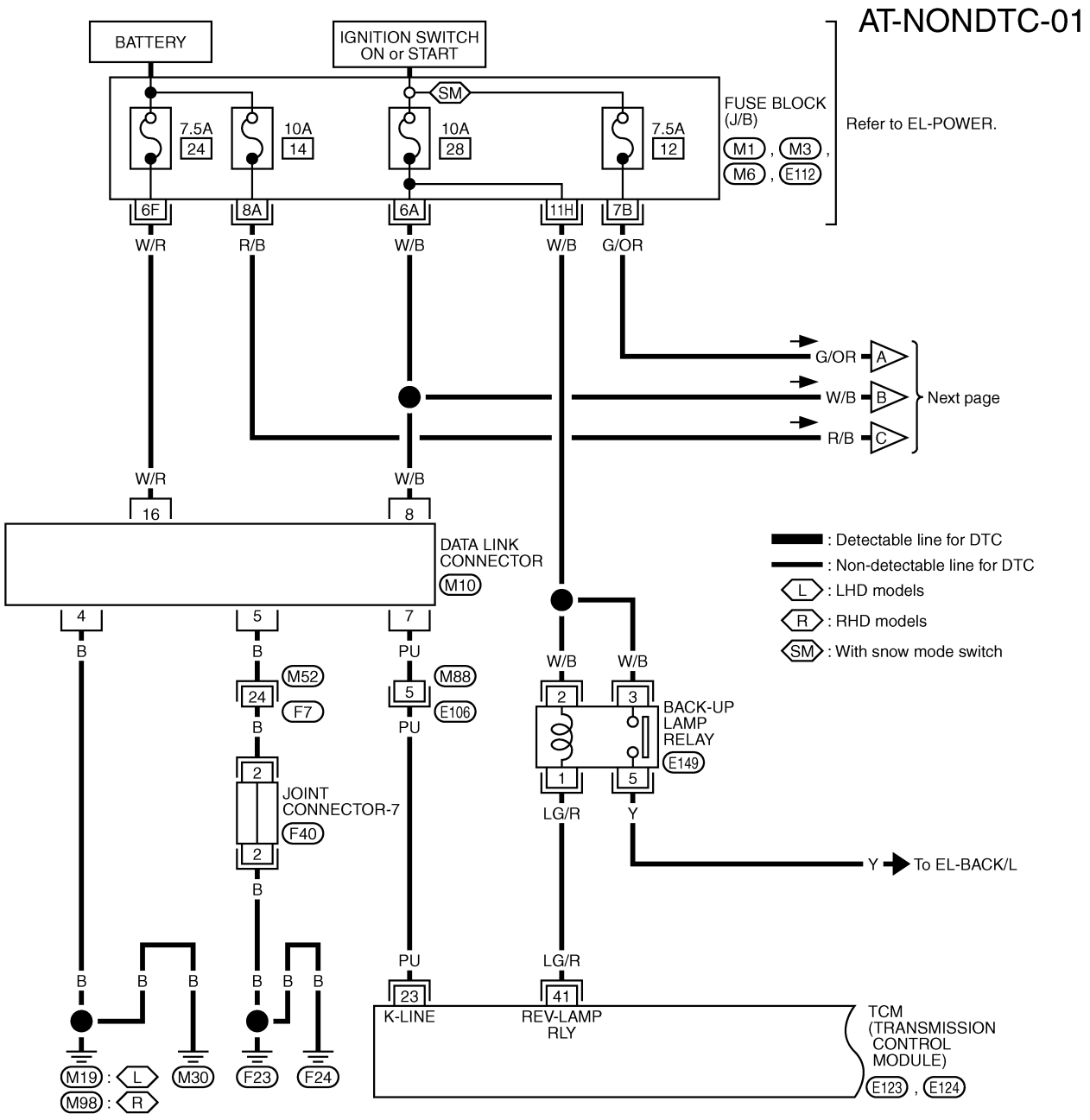


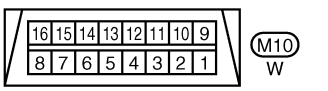


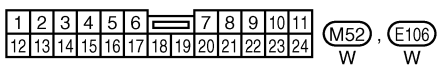
Refer to last page (Foldout page).
M20 , B19
E123

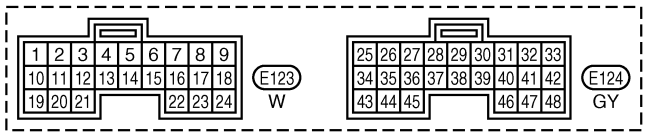
TAT118M

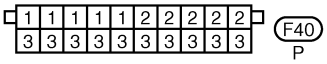
Wiring Diagram — AT — NONDTC











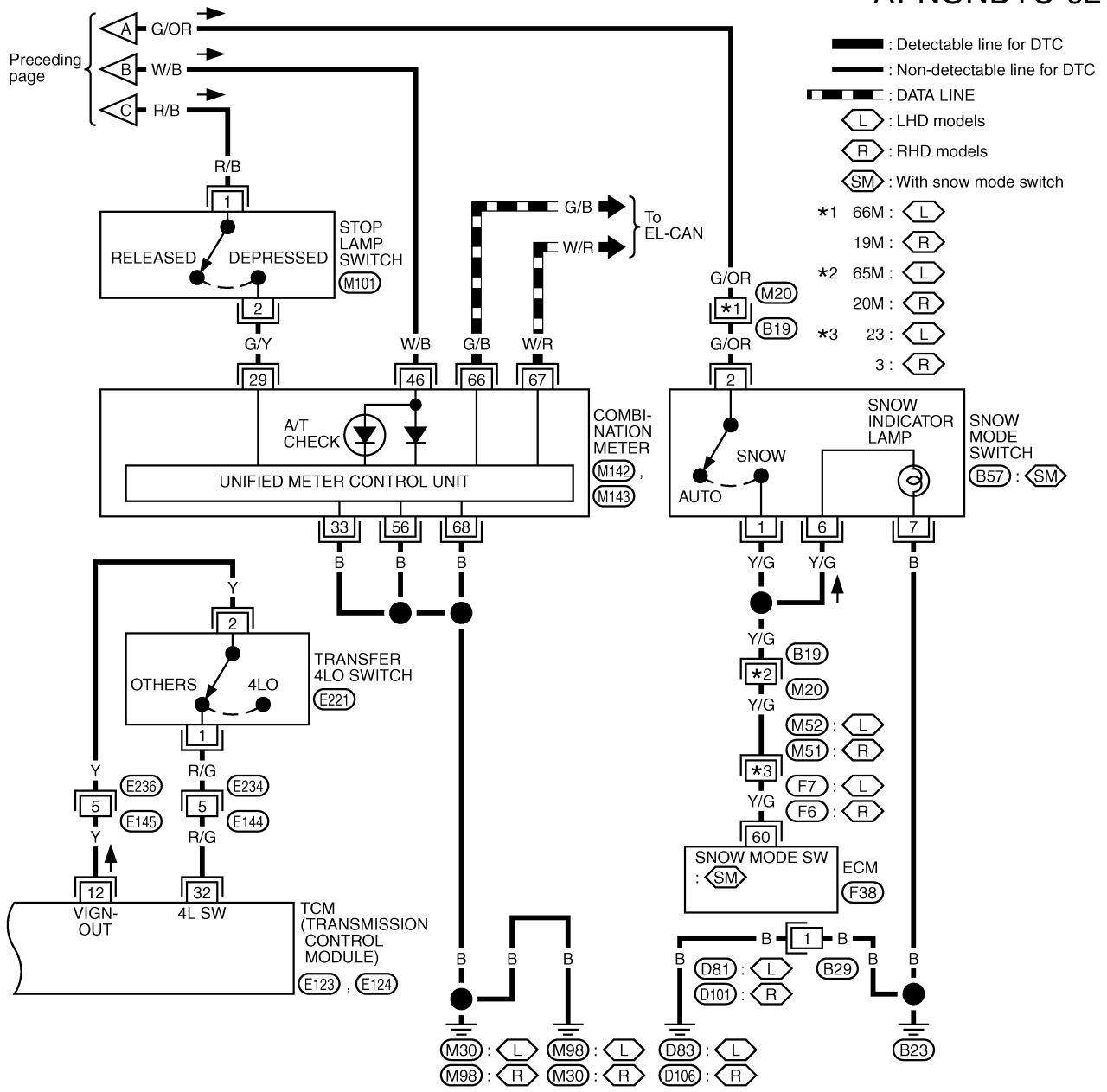
Refer to last page (Foldout page).

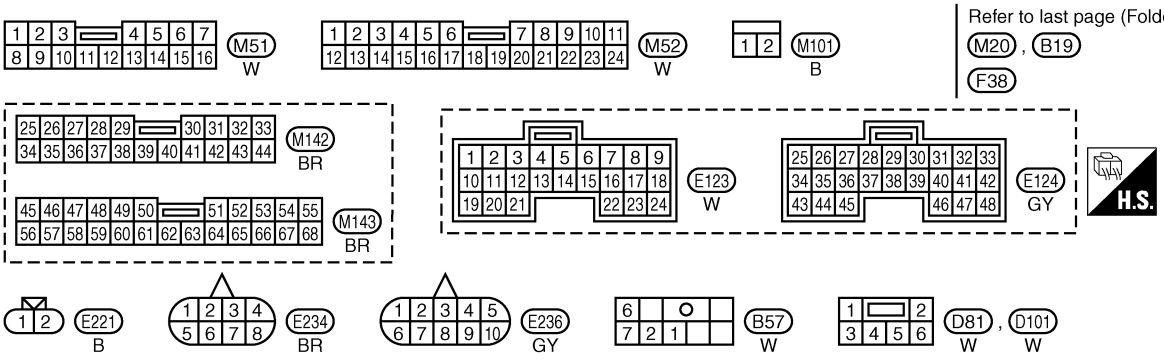
M1
M3
M6
E112

TAT106M

Wiring Diagram — AT — NONDTC (Cont'd)

AT-NONDTC-02

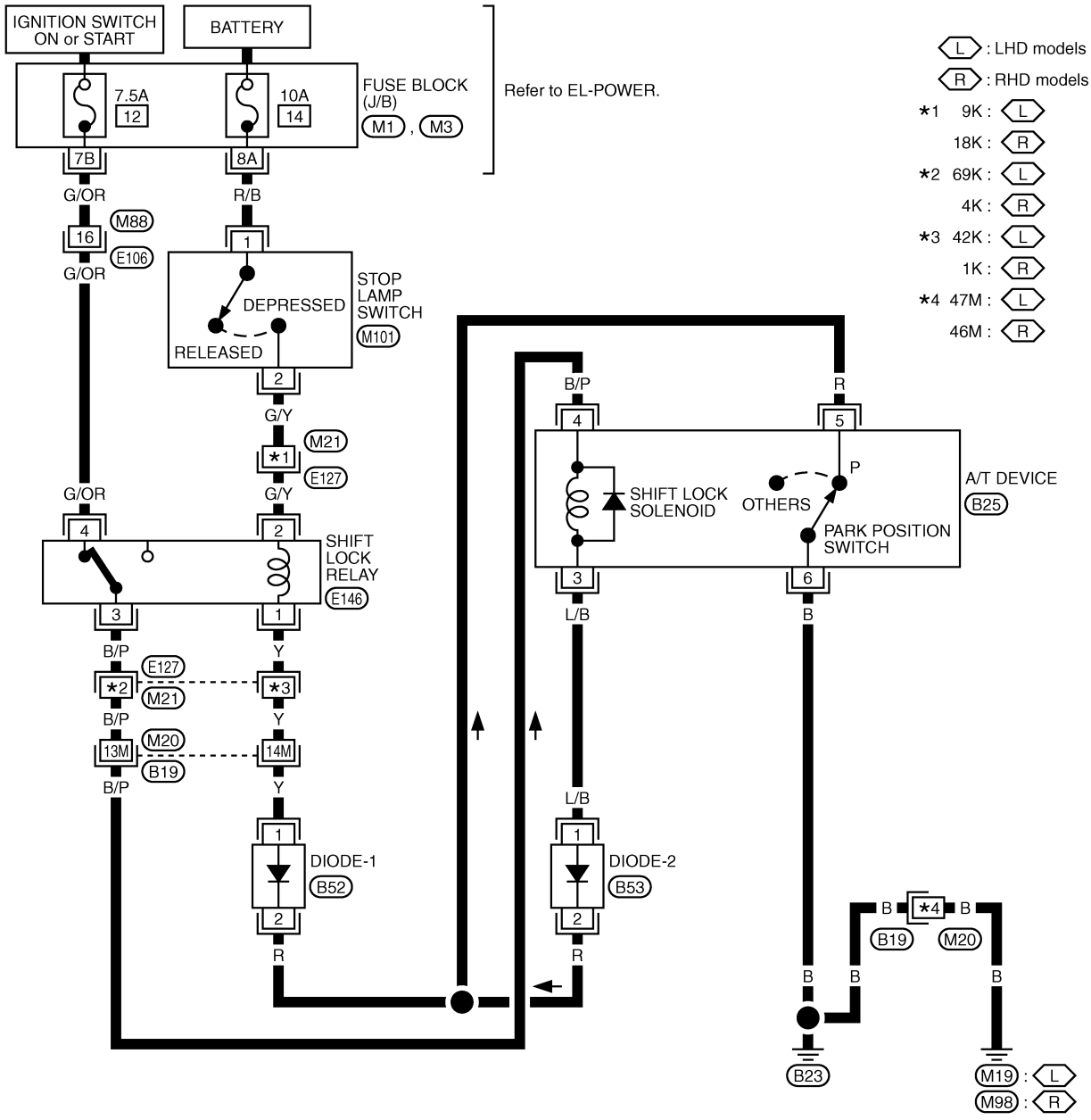


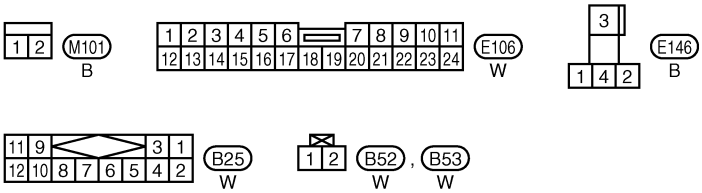


TAT116M

Wiring Diagram — SHIFT —

AT-SHIFT-01





Refer to last page (Foldout page).

M20, B19

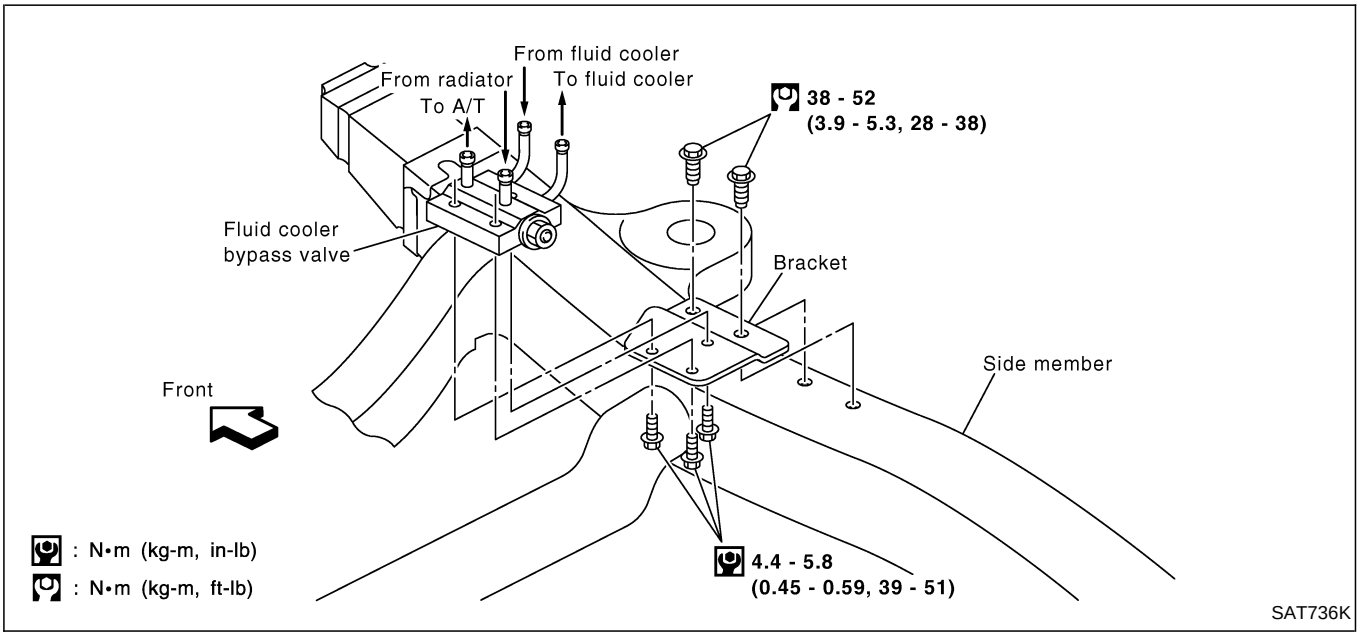
M21, E127

M1

M3

TAT117M

A/T Fluid Cooler Bypass Valve/For Europe



General Specifications

Engine		TB48DE	
Automatic transmission model		RE5R05A	
Destination		Except for Europe	For Europe
Transmission model code number		90X67	90X21
Stall torque ratio		2.0 : 1	
Transmission gear ratio	1st	3.540	
	2nd	2.264	
	3rd	1.471	
	4th	1.000	
	5th	0.834	
	Reverse	2.370	
Recommended fluid		Nissan Matic Fluid J*1	
Fluid capacity		10.4 - 10.7 liter (9-1/8 - 9-3/8 Imp qt)	

CAUTION:
- **Use only NISSAN Genuine ATF Matic Fluid J. Do not mix with other fluid.**
- **Using automatic transmission fluid other than NISSAN Genuine ATF Matic Fluid J will deteriorate in driveability and automatic transmission durability, and may damage the automatic transmission, which is not covered by the warranty.**

*1: Refer to MA section, “Fluids and Lubricants”.

Vehicle Speed When Shifting Gears

Throttle position	Vehicle Speed km/h (MPH)							
	$D_1 \rightarrow D_2$	$D_2 \rightarrow D_3$	$D_3 \rightarrow D_4$	$D_4 \rightarrow D_5$	$D_5 \rightarrow D_4$	$D_4 \rightarrow D_3$	$D_3 \rightarrow D_2$	$D_2 \rightarrow D_1$
Full throttle	52 - 56 (32 - 35)	81 - 89 (50 - 55)	126 - 136 (78 - 85)	188 - 198 (117 - 123)	184 - 194 (114 - 121)	116 - 126 (72 - 78)	70 - 78 (43 - 48)	36 - 40 (22 - 25)
Half throttle	32 - 36 (20 - 22)	62 - 68 (39 - 42)	104 - 112 (65 - 70)	126 - 134 (78 - 83)	100 - 108 (62 - 67)	61 - 69 (38 - 43)	37 - 43 (23 - 27)	10 - 14 (6 - 9)

- At half throttle, the accelerator opening is 4/8 of the full opening.

Vehicle Speed When Performing and Releasing Lock-up

Throttle position	Vehicle speed km/h (MPH)	
	Lock-up “ON”	Lock-up “OFF”
Closed throttle	64 - 72 (39 - 45)	61 - 69 (38 - 43)
Half throttle	164 - 172 (102 - 107)	130 - 138 (81 - 86)

- At closed throttle, the accelerator opening is less than 1/8.
- At half throttle, the accelerator opening is 4/8 of the full opening.

Stall Revolution

Stall revolution	1,900 - 2,200 rpm

Line Pressure

Engine speed (rpm)	Line Pressure kPa (bar, kg/cm^2, psi)	
	“R” position	“D”, “M” positions
Idling Revolution	392 - 441 (3.9 - 4.4, 4.0 - 4.5, 57 - 64)	373 - 422 (3.7 - 4.2, 3.8 - 4.3, 54 - 61)
Stall Revolution	1,700 - 1,890 (17.0 - 18.9, 17.3 - 19.3, 247 - 274)	1,310 - 1,500 (13.1 - 15.0, 13.4 - 15.3, 191 - 218)

Solenoid Valves

Name	Resistance (Approx.) (Ω)	Terminal No.
Line pressure solenoid valve	3 - 9	7
Torque converter clutch solenoid valve		8
Input clutch solenoid valve		6
High & low reverse clutch solenoid valve		3
Front brake solenoid valve		5
Direct clutch solenoid valve		4
Low coast brake solenoid valve	20 - 40	2

A/T Fluid Temperature Sensor

Name	Condition	CONSULT-II “DATA MONITOR” (Approx.) (V)	Resistance (Approx.) (kΩ)
A/T fluid temperature sensor-1	0°C (32°F)	2.2	15
	20°C (68°F)	1.8	0.6
	80°C (176°F)	0.6	0.9
A/T fluid temperature sensor-2	0°C (32°F)	2.2	10
	20°C (68°F)	1.7	4
	80°C (176°F)	0.45	0.5

Turbine Revolution Sensor

Name	Condition	Data (Approx.)
Turbine revolution sensor-1	When moving at 50 km/h (31 MPH) in 4th gear with the closed throttle position signal “OFF”, use the CONSULT-II pulse frequency measuring function. **CAUTION:** **Connect the diagnosis data link connector to the vehicle diagnosis connector.**	1.3 (kHz)
Turbine revolution sensor-2	When running at 20 km/h (12 MPH) in 1st gear with the closed throttle position signal “OFF”, use the CONSULT-II pulse frequency measuring function. **CAUTION:** **Connect the diagnosis data link connector to the vehicle diagnosis connector.**	

Revolution Sensor

Name	Condition	Data (Approx.)
Revolution sensor	When moving at 20 km/h (12 MPH), use the CONSULT-II pulse frequency measuring function. **CAUTION:** **Connect the diagnosis data link connector to the vehicle diagnosis connector.**	185 (Hz)